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(3) an impression cylinder in image-transferring relationship with said blanket cylinder for transferring said flexographic image from said blanket cylinder to said substrate; at least one of said succeeding printing stations being a lithographic printing station subsequent to said flexographic printing stations, and using offset lithography for printing additional images on top of said flexographic image on each sheet; and

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94. Method of combining offset lithographic and flexographic printing in a continuous in-line sheet-fed process, combining the steps of:

(a) providing a plurality of successive offset lithographic sheet-fed printing stations for printing images on one or both sides of each of a succession of cut paper sheets;

(b) providing one or more flexographic stations prior to at least one of said offset lithographic stations for printing a flexographic image on one side of each of said cut paper sheets, each flexographic printing station comprising:

(1) a blanket cylinder, said blanket cylinder including a flexographic plate having an image thereon for transferring a flexographic image to said blanket cylinder;

(2) an anilox roller for applying a flexographic image to said flexographic plate on said blanket cylinder; and

(3) an impression cylinder in image-transferring relationship with said blanket cylinder for transferring said flexographic image from said blanket cylinder to said substrate;

(c) providing at least one succeeding printing station subsequent to said flexographic printing stations, and being a lithographic printing station using offset lithography for printing or or more images on the reverse side of the side on which said flexographic image was printed; and

(d) providing a high velocity air dryer associated with the impression cylinder of each flexographic printing station for drying the flexographic image printed on each sheet.

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97. Apparatus for a combined lithographic and flexographic printing process for printing a multicolored image on a succession of sheets comprising:

(a) a plurality of successive printing stations for printing an image on a succession of sheets in a continuous in-line process, said printing stations including both lithographic and one or more flexographic printing station;

(b) each of said flexographic printing stations having:

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(1) a blanket cylinder, said blanket cylinder including a flexographic plate having an image thereon for transferring a flexographic image to said blanket cylinder;

(2) an anilox roller for applying a flexographic to said flexographic plate on said blanket cylinder; and

(3) an impression cylinder in an image-transfer relationship with said blanket cylinder for transferring said flexographic color image from said blanket cylinder to each of the succession of sheets;

at least one of said succeeding of printing stations being a lithographic printing stations subsequent to said flexographic printing stations, and using offset lithography for printing additional images on top of said flexographic image; and

(c) a high velocity air dryer associated with the impression cylinder of each flexographic printing stations for quickly drying the flexographic image printed on each sheet.

100. Apparatus for a combined lithographic and flexographic printing process for printing multicolored images on a succession of sheets, comprising:

(a) a plurality of successive printing stations for printing images on one or both sides of a succession of sheets in a continuous in-line process said printing stations including both lithographic and one or more flexographic printing stations;

(b) each of said flexographic printing stations having:

(1) a blanket cylinder, said blanket cylinder including a flexographic plate having an image thereon for transferring a flexographic image to said cylinder;

(2) an anilox roller for applying a flexographic image to said flexographic plate on said plate cylinder; and

(3) an impression cylinder in an image transferring relationship with said blanket cylinder for transferring said flexographic image from said blanket cylinder to each of the succession of sheets;

(c) at least one of said succeeding printing stations being an offset lithographic printing station subsequent to said flexographic printing station, and using offset lithographic for printing one or more additional images on the reverse side of the side on which said flexographic image was printed; and

(d) a high velocity air dryer associated with the impression cylinder of each flexographic printing station for drying the flexographic image printed on each sheet.

Please add the following claims:

~~Sub E22~~ 103. Method of combining offset lithographic and flexographic printing in a single pass printing process, combining the steps of:

(a) providing a plurality of successive offset lithographic printing stations for printing images on a substrate;

(b) providing one or more flexographic printing stations prior to at least one of said offset lithographic printing stations for printing one or more flexographic images on said substrate, each of said flexographic printing stations comprising:

~~E~~ (1) a blanket cylinder, said blanket cylinder including a flexographic plate having an image thereon for transferring the flexographic images to said blanket cylinder;

(2) an anilox roller for applying a flexographic image to said flexographic plate on said blanket cylinder; and

(3) an impression cylinder in image-transferring relationship with said blanket cylinder for transferring said flexographic images from said blanket cylinder to said substrate; and

(c) providing a dryer associated with the impression cylinder of each flexographic printing station for drying the flexographic images printed on said substrate.

104. The method of Claim 103 wherein the printing process is continuous in-line.

105. The method of Claim 103 wherein the substrate comprises cut paper sheets.

106. The method of Claim 103 wherein the substrate comprises a continuous web.

107. The method of Claim 103 wherein the printing of the flexographic image is accomplished by the anilox roller being mounted in an auxiliary retractable coater unit adapted to engage said flexographic plate on said blanket.

~~Sub E23~~ 108. The method of Claim 103 wherein the printing of the flexographic image is accomplished by the anilox roller being mounted in a dedicated flexographic printing station.

~~E~~ 109. Method of combining offset lithographic and flexographic printing in a continuous in-line printing process, combining the steps of:

(a) providing a plurality of successive offset lithographic sheet-fed printing stations for printing images on said substrate;

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(b) providing one or more flexographic stations prior to at least one of said offset lithographic printing stations for printing one or more flexographic images on said substrate, each flexographic printing station comprising:

(1) a blanket cylinder, said blanket cylinder including a flexographic plate having an image thereon for transferring said flexographic images to said blanket cylinder;

E (2) an anilox roller for applying said flexographic images to said flexographic plate on said blanket cylinder; and

(3) an impression cylinder in image-transferring relationship with said blanket cylinder for transferring said flexographic images from said blanket cylinder to said substrate;

(c) after said flexographic printing stations, one or more succeeding offset lithographic printing stations for printing one or more images on the reverse side of the side on which said flexographic images was printed; and

(d) providing a dryer associated with the impression cylinder of each flexographic printing station for drying the flexographic images printed on said substrate.

110. The method of Claim 109 wherein the substrate comprises cut paper sheets.

111. The method of Claim 103 wherein the substrate comprises a continuous web.

112. The method of Claim 109 wherein the printing of one or more flexographic images is accomplished by the anilox roller being mounted in an auxiliary retractable coater unit adapted to engage said flexographic plate on said blanket cylinder.

sub E24 113. The method of Claim 109 wherein the printing of one or more flexographic images is accomplished by the anilox roller being mounted in a dedicated flexographic printing station.

114. Apparatus for a combined offset lithographic and flexographic single pass printing process for printing one or more images on a substrate, comprising:

(a) a plurality of successive offset lithographic printing stations for printing images on a substrate;

(b) one or more flexographic printing stations prior to at least one of said offset lithographic printing stations for printing one or more flexographic images on said substrate, each of said flexographic printing stations having:

(1) a blanket cylinder, said blanket cylinder including a flexographic plate having an image thereon for transferring one or more flexographic images to said blanket cylinder;

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(2) an anilox roller for applying a flexographic to said flexographic plate on said blanket cylinder; and

(3) an impression cylinder in an image-transfer relationship with said blanket cylinder for transferring said flexographic images from said blanket cylinder to said substrate; and

(c) a dryer associated with the impression cylinder of each flexographic printing stations for quickly drying the flexographic images printed on said substrate.

115. The method of Claim 114 wherein the printing process is continuous in-line.

116. The method of Claim 114 wherein the substrate comprises cut paper sheets.

117. The apparatus of Claim 114 wherein the printing of one or more flexographic images is accomplished by the anilox roller being mounted in an auxiliary retractable coater unit adapted to engage said flexographic plate on said blanket cylinder.

118. The apparatus of Claim 114 where in the printing of flexographic images is accomplished by the anilox roller being mounted in a dedicated flexographic printing station.

119. Apparatus for a combined lithographic and flexographic continuous in-line printing process for printing one or more images on substrates comprising:

(a) a plurality of successive offset lithographic printing stations for printing images on a substrate;

(b) one or more flexographic printing stations prior to at least one of said offset lithographic printing stations for printing one or more flexographic images on said substrate, each of said flexographic printing stations having:

(1) a blanket cylinder, said blanket cylinder including a flexographic plate having an image thereon for transferring one or more flexographic images to said cylinder;

(2) an anilox roller for applying said flexographic images to said flexographic plate on said plate cylinder; and

(3) an impression cylinder in an image transferring relationship with said blanket cylinder for transferring said flexographic images from said blanket cylinder to said substrate;

(c) at least one of said succeeding printing stations being a lithographic printing station using offset lithographic for printing one or more additional images on the reverse side of the substrate on which said flexographic image was printed; and

(d) dryer associated with the impression cylinder of each flexographic printing station for drying the flexographic images printed on each sheet.

120. The apparatus of Claim 119 wherein the printing process is intended for a succession of cut paper sheets.

121. The apparatus of Claim 119 wherein the substrate is a continuous web.

122. The apparatus of Claim 119 wherein the printing of one or more flexographic images is accomplished by the anilox roller being mounted in an auxiliary retractable coater unit adapted to engage said flexographic plate on said blanket cylinder.

123. The apparatus of Claim 119 wherein the printing of one or more flexographic images is accomplished by the anilox roller being mounted in a dedicated flexographic printing station.

124. Method of combining offset lithographic and flexographic printing in a single pass printing process, combining the steps of:

(a) providing a plurality of offset lithographic printing stations for printing one or more images on a substrate;

(b) providing one or more flexographic printing stations prior to at least one of said offset lithographic printing stations for printing one or more flexographic images on said substrate; and

(c) providing a dryer associated with each flexographic printing station for drying said flexographic images printed on said substrate.

125. Method of combining offset lithographic and flexographic printing in a continuous in-line printing process, combining the steps of:

(a) providing a plurality of offset lithographic printing stations for printing one or more images on a substrate;

(b) providing one or more flexographic printing stations prior to at least one of said offset lithographic printing stations for printing one or more flexographic images on said substrate;

(c) after said flexographic printing stations, providing one or more succeeding printing offset lithographic printing stations for printing one or more images on the reverse side of the side on which said flexographic images were printed; and

(d) providing a dryer associated with each flexographic printing station for drying the flexographic images printed on said substrate.

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126. The method of Claim 124 wherein the printing process is continuous in-line.
127. The method of Claim 124 or 125 wherein the substrate comprises cut paper sheets.
128. The method of Claim 124 or 125 wherein the substrate comprises a continuous web.
129. The method of Claims 124 or 125 wherein the printing of the flexographic image is

accomplished by an anilox roller being mounted in an auxiliary retractable coater unit.

130. The method of Claim 124 or 125 wherein the printing of the flexographic image is
accomplished by an anilox roller being mounted in a dedicated flexographic printing station.

131. The method of Claim 124 or 125 wherein the flexographic images are printed using
a water based liquid vehicle containing suspended particles.

132. The method of Claim 131 wherein said suspended particles are uniform in size.

133. The method of Claim 131 wherein said suspended particles are nonuniform in size.

134. The method of Claim 131 wherein said suspended particles are metallic particles.

135. The method of Claim 124 or 125 wherein the flexographic images are printed using
an opaque color ink.

136. The method of Claim 135 wherein the flexographic images are printed using a white
color opaque ink.

137. The method of Claim 135 wherein the flexographic images are printed with a liquid
vehicle slurry containing an encapsulated essence.

138. The apparatus for a combined offset lithographic and flexographic single pass printing
process for printing one or more images on a substrate, comprising:

(a) a plurality of successive offset lithographic printing stations for printing
images on a substrate;

(b) one or more flexographic printing stations prior to at least one of said offset
lithographic printing stations for printing one or more flexographic images on said substrate; and

(c) a dryer associated with each flexographic printing station for drying said
flexographic images printed on said substrate.

139. Apparatus for a combined offset lithographic and flexographic continuous in-line
printing process, comprising:

(a) a plurality of offset lithographic printing stations for printing one or more
images on a substrate;

(b) one or more flexographic printing stations prior to at least one of said offset lithographic printing stations for printing one or more flexographic images on said substrate;

(c) one or more succeeding offset lithographic printing stations after said flexographic printing stations for printing one or more images on the reverse side of the side on which said flexographic images were printed; and

(d) a dryer associated with each flexographic printing stations for drying the flexographic images printed on said substrate.

140. The apparatus of Claim 138 wherein the printing process is continuous in-line.

141. The apparatus of Claim 138 or 139 wherein the substrate comprises cut paper sheets.

142. The apparatus of Claim 138 or 139 wherein the substrate is a continuous web.

143. The apparatus of Claims 138 or 139 wherein the printing of the flexographic image is accomplished by an anilox roller being mounted in an auxiliary retractable coater unit.

144. The apparatus of Claim 138 or 139 wherein the printing of the flexographic image is accomplished by an anilox roller being mounted in a dedicated flexographic printing station.

145. The apparatus of Claim 138 or 139 wherein the flexographic images are printed using a water based liquid vehicle containing suspended particles.

146. The apparatus of Claim 145 wherein said suspended particles are uniform in size.

147. The apparatus of Claim 145 wherein said suspended particles are nonuniform in size.

148. The apparatus of Claim 145 wherein said suspended particles are metallic particles.

149. The apparatus of Claim 138 or 139 wherein the flexographic images are printed using an opaque color ink.

150. The apparatus of Claim 149 wherein the flexographic images are printed using a white color opaque ink.

151. The apparatus of Claim 149 wherein the flexographic images are printed with a liquid vehicle slurry containing an encapsulated essence.

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